

# FACT SHEET

OCTOBER 1998

## UST Regulatory Compliance and Management

### Introduction

In 1988, the U.S. Environmental Protection Agency (EPA) issued regulations to protect public health and the environment from leaking underground storage tanks (USTs). The regulations required new tanks installed after December 1988 to have leak detection, and spill, overfill and corrosion protection (see Title 40 Code of Federal Regulations (CFR) Part 280, "Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks"). Additional UST requirements address notification, installation, corrective action, financial responsibility, and record keeping. Tanks that were installed before December 1988 were given until December 22, 1998 to comply with the UST spill, overfill, and corrosion protection requirements.

In May 1997 EPA announced that the December 22, 1998 deadline would not be extended. Failure to comply can have significant legal and financial consequences. EPA can assess civil penalties of \$11,000 per tank for each day out of compliance and has the authority to close noncompliant facilities.

Over the past 10 years, EPA has issued guidance and established programs to ensure UST owners and operators comply with the new regulations by the December 1998 deadline. This fact sheet presents an overview of the requirements; discusses EPA and GSA policy; presents Best Management Practices (BMPs) for ongoing

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UST management; and explains options available to GSA regarding its USTs.

### What Tanks Are Covered by This Regulation?

A UST is any tank that has at least 10% of its volume underground. The regulations apply to USTs that store petroleum, petroleum products, or hazardous substances as defined by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Federal regulations DO NOT apply to tanks with a capacity of less than 110 gallons, tanks on or above the floor of underground areas such as basements, process flow-through tanks, emergency spill and overfill tanks, and tanks containing heating oil that is used on the premises. However, some states have more stringent regulations that include these types of tanks (see Compliance with State Programs, page 5).

### New UST System Performance Standards

Prior to the December 22, 1998 deadline, all existing UST systems must comply with one of the following:

- ◆ New UST system performance standards under 40 CFR 280.20;
- ◆ Upgrading requirements under 40 CFR 280.21(b) through (d); or Closure and corrective action requirements under 40 CFR 280, Subparts G and F.

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- ◆ USTs that contain hazardous substances are also required to have a secondary containment system (such as a tank within a tank) and a monitoring system to detect leaks between the tank and the secondary containment.

Owners and operators are responsible for ensuring all newly installed UST systems meet construction, corrosion protection, release detection, and spill/overfill prevention requirements. New tanks and/or piping may be constructed of steel or fiberglass-reinforced plastic. All new tanks, piping, and related structures/equipment must be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory (see Table 1) and in accordance with the manufacturer's instructions. Further, the new UST system must be certified, tested, or inspected to demonstrate proper installation. Such certification must be included as part of the EPA Form "Notification for Underground Storage Tanks" (found in Appendix I of Part 280) and submitted to the appropriate regulatory authority. For more information about construction, corrosion protection, release detection, and spill and overfill requirements specific to new UST systems, see 40 CFR 280.20—"Performance Standards for New UST Systems."

### **Upgrading Requirements**

As a second alternative to complying with the above-mentioned new system requirements, owners and operators may choose to upgrade existing steel tanks by lining or installing cathodic corrosion protection, or a combination of both. Upgrading with only lining or cathodic corrosion protection will subject the owner/operator to an additional level of periodic testing, monitoring, and inspections to verify the integrity of the tank. Using lining and cathodic corrosion protection in combination will relieve the owner/operator of these extra monitoring requirements. The lining and cathodic protection of upgraded tanks must meet certain requirements as specified in 40 CFR 280.20 and 280.21.

### **Spill and Overfill Protection**

To prevent spilling and overfilling associated with the transfer of product to the UST system, all existing UST systems must have a device installed, such as a catchment basin, that prevents spilling to the

environment when the transfer hose is detached from the fill pipe. In addition, overfill protection equipment such as automatic shutoff devices, overfill alarms, or ball float valves must be installed that shut off flow into the tank and alert operators to threatened overfill situations.

### **Piping**

In addition, metal piping that routinely contains a regulated substance and is in contact with the ground must also be cathodically protected against corrosion in a manner that meets the same requirements as those of USTs. The upgraded piping must meet certain requirements as specified in Sections 280.20.

### **Closure and Corrective Action Requirements**

The third alternative available to owners and operators is to close the existing UST system, either temporarily or permanently, in accordance with standards set forth in Title 40 CFR Part 280, Subpart G—"Out-of-Service UST Systems and Closure." Closure of UST systems may also subject the owner or operator to the requirements of Subpart F—"Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances."

Temporary closure of an UST system typically includes maintaining release detection or emptying it, and maintaining corrosion protection. A UST system that is out of service (i.e., temporarily closed) for more than 12 months must be permanently closed unless it meets certain requirements as detailed in Section 280.70 of Subpart G.

Owners and operators of UST systems slated for closure or change-in-service must perform the following:

- ◆ Notify the state or local UST regulatory/ implementing agency;
- ◆ Empty and clean the tank;
- ◆ Remove the tank from the ground or fill it with an inert substance if removal is not practicable;
- ◆ Conduct an Assessment of the Excavation Zone (Site Assessment) by testing for the presence of a UST release (via screening method or laboratory analysis) where contamination is most likely to be present. Corrective action must be started in accordance with Subpart F if a release from the UST has occurred; and
- ◆ Maintain closure records for at least 3 years.

## Table 1: UST Industry Standards and Codes

The following Industry Standards and Codes (mentioned by title only in Title 40 CFR Part 280) are applicable to the installation of new UST systems, or to existing systems being upgraded to comply with new UST performance standards. Copies of the documents may be obtained through NEPA Call-In or by contacting the publishers at the phone numbers or web sites listed below.

### Tanks

- "Standard for Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products," Underwriters Laboratories Standard 1316, Ph: 847-272-8800, <http://www.ul.com>
- "Standard Specifications for Glass-Fiber-Reinforced Polyester Underground Storage Petroleum Tanks," American Society of Testing and Materials Standard D4021-86, Ph: 610-832-9585, <http://www.astm.org>
- "Specification for STI-P3 System of External Corrosion Protection of Underground Steel Storage Tanks," Steel Tank Institute, Ph: 847-438-8766, <http://www.steeltank.com>
- "Corrosion Protection Systems for Underground Storage Tanks," Underwriters Laboratories Standard 1746, Ph: 847-272-8800, <http://www.ul.com>
- "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," National Association of Corrosion Engineers Standard RP-02-85, Ph: 281-228-6200, <http://www.nace.org>
- "Standard for Steel Underground Tanks for Flammable and Combustible Liquids," Underwriters Laboratories Standard 58, Ph: 847-272-8800, <http://www.ul.com>
- "Specification for the Fabrication of FRP Clad Underground Storage Tanks," Steel Tank Institute, Ph: 847-438-8766, <http://www.steeltank.com>

### Piping

- "UL Listed Non-metal Pipe," Underwriters Laboratories Subject 971, Ph: 847-272-8800, <http://www.ul.com>
- "Pipe Connectors for Flammable and Combustible and LP Gas," Underwriters Laboratories, Ph: 847-272-8800, <http://www.ul.com>
- "Flammable and Combustible Liquids Code," National Fire Protection Association Standard 30, Ph: 617-370-3000, <http://nfpa.org>
- "Installation of Underground Storage Petroleum Systems," American Petroleum Institute Publication 1615 (also used as a standard for UST system installation), Ph: 202-682-8000, <http://www.api.org>
- "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," American Petroleum Institute Publication 1632, Ph: 202-682-8000, <http://www.api.org>
- "Control of External Corrosion on Submerged Metallic Piping Systems," National Association of Corrosion Engineers Standard RP-01-69, Ph: 281-228-6200, <http://www.nace.org>

### Installation

- "Recommended Practices for Installation of Underground Liquid Storage Systems," Petroleum Equipment Institute Publication RP100, Ph: 918-494-9696, <http://www.peinet.org>
- "Petroleum Refinery Piping," American National Standards Institute Standard B31.3, Ph: 212-642-4900, <http://ansi.org>
- "Liquid Petroleum Transportation Piping Systems," American National Standards Institute Standard B31.4, Ph: 212-642-4900, <http://ansi.org>

Should a release of petroleum product be discovered at any time, including during system replacement, upgrading or closure, the owner or operator may be required to perform a significant amount of initial response, abatement, site characterization, free product removal, investigation, corrective action and public participation activities under Subpart F. GSA employees who encounter a UST release situation should contact the appropriate regional environmental point-of-contact.

Owners and operators of new or existing UST systems, regardless of the compliance status with the upgrade requirements discussed above, must comply with Title 40 CFR Part 280 Subpart C—"General Operating Requirements." These requirements include good housekeeping and record keeping activities, as well as activities that ensure the structural and chemical integrity of the system.

## **Recording and Reporting Requirements**

Owners of UST systems that were put into service after May 8, 1986, must submit a notification form to the regulatory authority within the first 30 days of tank use. This form also requires tank owners to certify that they meet the financial responsibility requirements under Subpart H. However, Federal and state governments that own USTs are not required to demonstrate financial responsibility.

Owners and operators of UST systems are required to cooperate fully with inspections, monitoring, and testing conducted by the regulatory authority. Owners and operators must also submit the following information:

- ◆ Certification of installation for new UST systems;
- ◆ Reports of all releases, including suspected releases, spills and overfills, and confirmed releases;
- ◆ Corrective actions planned or taken, including initial abatement measures, initial site characterization, free product removal, investigation of soil and ground-water cleanup, and corrective action plan; and
- ◆ A notification before permanent closure or change-in-service.

Owners and operators of USTs must maintain records that can be provided to authorities during an

inspection to show that the facility is in compliance with all applicable regulations, including:

- ◆ Records of leak detection performance and maintenance, such as results of the most recent tightness test, the previous year's monitoring results, and calibration of on-site leak detection equipment;
- ◆ Records of required inspections, tests, and operation of the tank's corrosion protection system;
- ◆ Documentation of UST system upgrades or repairs;
- ◆ Records of compliance with release detection requirements; and
- ◆ Results of the site investigation conducted at permanent closure for at least 3 years after closure.

These records must be kept either at the UST site and immediately available for inspection by the regulatory authority or at a readily available alternative site and should be provided to the regulatory authority for inspection upon request.

In the case of permanent closure, owners and operators have the option of mailing closure records to the implementing agency if they cannot be kept at the site or an alternative site.

## **Compliance With State Programs**

Subtitle I of the Resource Conservation and Recovery Act (RCRA) allows states to operate programs that have been approved by EPA. EPA-approved state programs supersede Federal requirements. Program approval ensures that a single set of requirements (the state's) will be enforced in that state, thus eliminating the duplication and confusion that can result from having separate Federal and state requirements. As of August 1998, the following 25 states, plus the District of Columbia and Puerto Rico, operate EPA-approved UST programs: Alabama, Arkansas, Connecticut, Delaware, Georgia, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Mississippi, Montana, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma, Rhode Island, South Dakota, Texas, Utah, Vermont, Washington, and West Virginia.

In these states, the EPA-approved, state-operated program is used in lieu of the Federal program. Such state programs must be "no less stringent" than Federal requirements, and are often more stringent.

In all other states, UST owners and operators must be aware of additional state or local UST regulations and

programs to be in full compliance. Most states have their own UST programs, which do not require EPA approval. Where EPA has not given approval of the state program, UST owners and operators must comply with both Federal and state programs, which may mean dual reporting requirements. State and local regulations are typically more stringent than the Federal regulations.

The State of California is one example where the state regulations, which have not yet been approved by EPA, are more stringent than the Federal regulations. For instance, Federal regulations exempt all tanks containing heating oil for on-premise consumptive use. However, California regulations, contained in Title 23 California Code of Regulations, Chapter 16, only exempt heating oil tanks from regulation if they are located on a farm or a residence of a person, with a capacity of 1,100 gallons or less. Therefore, heating oil tanks in the State of California that are not located on a farm or residence must comply with the state regulations.

Links to state UST programs and regulations can be found on the EPA's UST homepage on the world wide web ([www.epa.gov/swrust1/](http://www.epa.gov/swrust1/)).

## **Post Deadline Management Strategies**

There are several management options available for owners/operators with USTs that will not be in compliance by December 22, 1998. These include temporary or permanent closure, or a combination of both. Temporary or permanent closure of noncompliant USTs must be accomplished by the deadline date and must be carried out according to certain guidelines established by EPA, state, or local regulatory authority.

### **Temporary Closure**

Federal regulations allow for temporary closure of tanks for up to 12 months. By the end of the 12-month temporary closure period, tanks may either be permanently closed or brought up to regulatory standards and reopened. The temporary closure option allows the owner/operator extra time to make sound decisions about how best to deal with the UST. If more time is needed, it may be possible to apply for a temporary closure extension. The regulatory agency may grant an extension beyond the initial 12 months if an assessment that determines whether

contamination is present at the site is provided. Temporary closure must comply with the following guidelines:

1. Monitoring for leaks must continue through the use of in-place leak detection system unless the UST is empty;
2. Monitoring and maintenance of corrosion protection system must continue;
3. If the UST remains temporarily closed for more than three months, vent lines must be left open, but all other lines, pumps, manways, and ancillary equipment must be capped and secured.

By the end of the temporary closure period, including any extensions that were granted beyond the initial 12 months, the UST should be permanently closed or brought into compliance with regulatory standards for new or upgraded tanks, and put back into service.

### **Permanent Closure**

If temporarily closing the noncompliant UST is not an option, then permanent closure of USTs that do not meet the regulatory standards must be accomplished by the December 22, 1998 deadline. Notification of the intent to permanently close a UST must be made to the regulatory agency at least 30 days before closure. The final date to send such notification is November 20, 1998. Permanent closure must comply with the following guidelines:

1. Action must be taken to determine if contamination from the UST is present at the site. Take corrective action if contamination is present;
2. Maintain records for at least 3 years of any action taken to determine the presence of contamination from the UST;
3. Have the UST emptied and cleaned by removing all liquids, dangerous vapor levels, and accumulated sludge; and
4. If the UST is left in the ground, it must be filled with a harmless, chemically inactive solid, such as sand.

## **GSA Policy and Guidance**

GSA guidance for UST management is contained in a series of GSA Environmental Management Technical Guides, which are available through NEPA Call-In. Specifically, Technical Guide E202, "Underground Storage Tanks," March 1995, contains GSA UST policy guidance. GSA Technical Guides were issued by the former Safety and Environmental Management Division, Public Buildings Service.

The GSA UST Technical Guide outlines a UST management program that includes inventorying GSA- owned and -operated tanks and a step-by-step process for ensuring tanks are in compliance with regulations outlined in this Fact Sheet.

According to the Technical Guide, all property management centers and field offices where GSA owns or operates USTs should develop a UST Management Plan. The UST Management Plan is the responsibility of the property management center or field office manager. Each UST Management Plan should contain the following information:

1. A list of all USTs at GSA-owned, -leased, and -delegated buildings;
2. An up-to-date inventory of all GSA USTs;
3. Records of any tank notification sent to the regulatory authority;
4. A priority ranking system for tank closure, replacement, and upgrade;
5. Description of mitigation plans and emergency response plans for UST releases;
6. A determination of estimated funds for tank projects and a schedule for implementation;
7. A plan for ongoing leak detection tests and repairs;
8. An explanation of the reporting procedures for notification of releases from tanks; and
9. A records management system and internal reporting of data to the Regional Office.

The GSA UST Technical Guide requires that up-to-date copies of annual UST inventory reports be sent to the Central Office environmental team by December 31 of each year. UST inventory reports are contained in Figure 2 of the UST Technical Guide. The Technical Guide also requires all UST-related records to be maintained on site for 5 years. At the end of 5 years, records should be sent to a records center and kept on file for at least 20 years.

Due to the elimination of some offices referenced in the Technical Guide, it is suggested that NEPA Call-In be contacted for the latest up-to-date regulatory requirements and GSA guidance concerning USTs.

## For More Information

For more information, contact NEPA Call-In at (202) 208-6228 or visit the EPA's Office of Underground Storage Tanks home page ([www.epa.gov/swrust1/index.htm](http://www.epa.gov/swrust1/index.htm)).

## References

*Dollars and Sense: Financial Responsibility Requirements for Underground Storage Tanks*, U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response, EPA 510-K-95-004, July 1995.

*Don't Wait Until 1998; Spill, Overfill, And Corrosion Protection for Underground Storage Tanks*, U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, EPA 510-B-94-002, April 1994.

*Federal UST Technical Regulations*, Title 40 CFR Part 280, U.S. Environmental Protection Agency.

*Musts For USTs: A Summary of Federal Regulations For Underground Storage Tank Systems*, U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response, EPA 510-K-95-002, July 1995.

"Regulatory Alert: UST Upgrade Deadline Approaches," PRO-ACT CrossTalk, Edition 42, November 1997.

U.S. Environmental Protection Agency Office of Underground Storage Tanks web page ([www.epa.gov/swrust1/index.htm](http://www.epa.gov/swrust1/index.htm))

*Underground Storage Tanks*, GSA Technical Guides, Safety and Environmental Management Division, GSA Public Buildings Service, E202.0395

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